



# The Sabal

February 2017

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## In this issue:

February program p1 below.  
Malvaceae: The Mallows p 2-6 by Christina Mild  
(Photos provided by Dr. Alfred Richardson.)  
LRGV Native Plant Sources & Landscapers,  
NPP Sponsors, Upcoming Meetings p 7  
Membership Application (cover) p8

Plant species page #s in the Sabal refer to:  
**"Plants of Deep South Texas" (PDST).**

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## NPP meeting topic/speaker:

**"Living on the South Texas Sand Sheet" —by Arturo Longoria-Valverde**

**Tues., February 28th, at 7:30pm**

Arturo Longoria-Valverde has been living a somewhat isolated life for several years at the edge of the South Texas Sand Sheet in northeastern Starr County near Brooks and Jim Hogg. He loves living in that remote wild area and has just published a new book with Texas A&M Press called "The Sand Sheet." Arturo remarks: "It's about my life in these wilds as a naturalist and bushcraft aficionado."

Arturo grew up in South Texas learning to live off the land. For the Valverde family (his mother's side) this was a way of life. The knowledge of edible and medicinal native plants had been passed down through seven generations of South Texans.

He has also published: "Keepers of the Wilderness" and "Adios to the Brushlands."

Arturo maintains a blog: [woodsroamer.blogspot.com] and can be reached at:  
<thewoodsroamer@gmail.com>.

The meeting is at **Valley Nature Center**, 301 S Border, (in Gibson Park), Weslaco. 956-969-2475.

**The Sabal** is the newsletter of the Native Plant Project.

It conveys information on native plants, habitats and environment of the Lower Rio Grande Valley, Texas.

Previous **Sabal** issues are posted on our website [[www.NativePlantProject.org](http://www.NativePlantProject.org)].

Electronic versions of our **Handbooks** on recommended natives for landscaping are also posted there.

**Change of address, missing issue, or membership:** <[bwessling@rgv.rr.com](mailto:bwessling@rgv.rr.com)>

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Malvaceae, The Mallows —By Christina Mild  
 Illustrated with amazing digital photos by Dr. Alfred Richardson

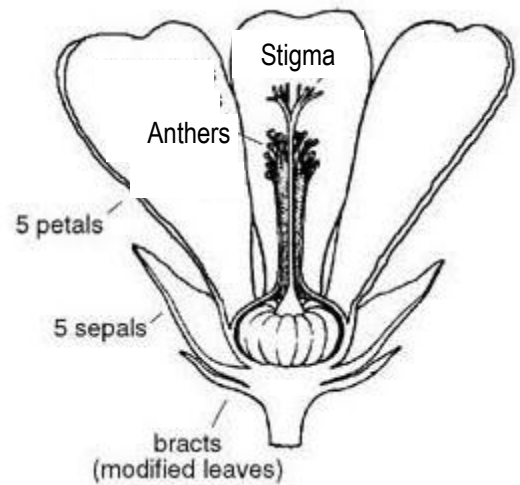
Photos are highly-enlarged to show morphological detail.

A quick count of the Malvaceae included in “Plants of Deep South Texas” reveals 43 species found in this area. No doubt Dr. Richardson and Ken King have come across a few more since the book was published in 2011. They continue exploring every weekend, finding plants we weren’t aware of.

Mallows are among our most beautiful plants. Some of them will bloom almost throughout the year. Others produce amazing masses of color after spring rains. Typically their blooms will not be open throughout the day. Some bloom in the morning, others in the evening.

A simplified drawing of a typical Malvaceae bloom appears on the upper right. The typical five petals are usually colorful, while the five sepals found beneath the petals are typically green until the bloom matures into some sort of fruiting structure. Stigmas, which capture pollen from visiting creatures, are often strikingly beautiful. Pollen-producing anthers are fused together below and surrounding the “sticky” stigma, on which pollen is unwittingly deposited by visiting pollinators and nectarers.

The pumpkin-like ovary, where seeds are produced, is “superior” as the petals and sepals are attached near its base.



Left: Here, stigmas (pink) and anthers (yellow) are easily distinguished as they are different colors. Sometimes colors develop as blooms mature, sometimes not. (*Meximalva filipes*, PDST 314).



Right: Five hairy green sepals are barely visible between five orange petals. The stigmas are bright red while anthers show the yellow typical of pollen. (*Modiola caroliniana*, PDST 314).



Left: Thin and curving stigmas are delicately beautiful in this spring wild-flower, the Winecup. (*Callirhoe involucreta* var. *lineariloba*, PDST 308).



Right: Here, the enlarged, rounded and whitish sticky surfaces of the stigmas are easily-distinguished from the yellow, pollen-bearing anthers below them. (Tulipan del Monte, Heart-Leaf Hibiscis, *Hibiscus martianus*, PDST 310.) C. Mild photo.

Malvaceae, continued...

We often think of Mallows as having heart-shaped leaves. This is sometimes true, but not always.



Above left: Heart-shaped leaves are obvious in this species. (*Abutilon berlandieri*, PDST 302.) This is one of the “Indian Mallows.” It can be distinguished by sticky glands.



Above right: Heart-shaped leaves are indicated by the common name “Heart-Leaved Hibiscus.” Note the difference in color between the leaves on these two species. Even without blooms, the leaf color is helpful in distinguishing them. (*Hibiscus martianus*, PDST 310. Tulipan del Monte.)



Above left: Leaves of this species are narrow and elongated. *Kosteletzkya depressa*. (This species was incorrectly identified in PDST 310 as *K. virginica*, which has much larger blooms.) Note the habit of the flower column in this genus, which arches downward, an unusual attribute. Saltmarsh Mallow. Blooms are pink or white.



Above right: Leaves and bracts can be hard to distinguish. Unusual coloration and shape of the leaf-like “windowed” bracts which surround the maturing blooms distinguish this mallow. (*Malachra capitata*, PDST 311, Malva de Caballo.)

Malvaceae, continued...

Mallows can be incredibly difficult to photograph. Many of their leaves, stems, bracts, and other structures can be covered by hairs, sometimes clustered together in a star-like arrangement. Hairs probably help the plant to conserve water by producing a micro-environment around the hairy structures and may slow down predation, as hair-covered structures may be irritating.

Upper and lower right: Stellate (star-like) clusters of hairs, as well as longer, single spiky hairs are seen in these photos of stems. (*Kosteletzkya depressa*, PDST 310, photographed on Hwy 803, August 13, 2011.)

Lower left: This photograph is incredible in that myriad hairs and the structure of the flower are in excellent focus. (*Billieturnera helleri*, PDST 308. Coppery False Fan-petals, Copper Mallow.) Note the profusion of hairs on stems, upper and lower leaf surfaces. Only the bloom seems to be devoid of hairs. The edible blooms of this species open in the afternoon. It is found primarily in coastal and inland saline clay soils. This is a woody plant with prostrate or leaning stems.



## Malvaceae, continued...

A simplified description of Mallow seedpods found on the internet:

“There are two distinct types of seedpod in this Family. In many species, there are many disc-shaped seeds in a ring at the bottom of the style, with the calyx folded over them. In some species, there may be only five rounded seeds inside the calyx. In the genera *Hibiscus* and *Gossypium* (cotton), the seeds are enclosed in a capsule. In one case (*Malvaviscus drummondii*, Turk’s Cap, PDST 313), the fruit is a berry. The fruit is always formed from a superior ovary.”

Photos may be even more helpful in training your eye to see the seedpods of various Mallows.

Upper right: *Abutilon hulseanum* (PDST 303). Jann’s Indian Mallow. The beaked seed capsule is indicative of Abutilons. Inside the capsule, each compartment holds multiple seeds. Brown seed capsules have split open. Seeds are released when the wind blows or the plant is disturbed.

Below left: *Rhynchosida physocalyx* (PDST 314) Bladderpod Sida. The mature swollen calyx inflated around the seed capsule will blacken when ripe. This species blooms after rain from spring thru fall. It typically sprawls over the ground, growing from a taproot which resembles a parsnip.

Below right: *Wissadula amplissima* (PDST 320) is one of the velvet leaf mallows. This species has a complex seed capsule, which is also true of various other mallows. The seed capsule divides into 5 segments, and each of these splits open. Each segment has two compartments, the lower one with 2 seeds, the upper with 1 seed. In some mallows, this compartmentalization seems to release some seeds quickly, while others are “held in reserve” until growing conditions change (such as rain, wind or a change of season).



It is sometimes useful to consult a key when attempting to distinguish various genera of Malvaceae. The key below is copied from "Broad-Leaved Herbaceous Plants of South Texas," by Everitt, Drawe & Lonard, 1999, pages 175-176. It does not include all of the genera found in "Plants of Deep South Texas" as PDST is a later and more inclusive publication.

## **MALVACEAE**

- 1a. Leaves palmately lobed. **2**
- 1b. Leaves entire or toothed, but not deeply lobed. **3**
  
- 2a. Flowers several near the stem apex; corollas orange-red. ***Sphaeralcea***
- 2b. Flowers solitary at the nodes or on an elongated pedicel; corolla reddish-purple and white near the base. ***Callirhoe***
  
- 3a. Fruit pulpy and berrylike; corolla erect, not spreading, crimson. ***Malvastrum***
- 3b. Fruit dry at maturity; corolla lobes usually spreading laterally. **4**
  
- 4a. Calyx not subtended by bracts. **5**
- 4b. Calyx subtended by bracts. **7**
  
- 5a. Calyx inflated in fruit and loosely enclosing the fruit. ***Rhynchosida***
- 5b. Calyx not enclosing the fruit at maturity. **6**
  
- 6a. Leaves ovate to ovate-cordate; venation palmate. ***Abutilon***
- 6b. Leaves usually linear or lanceolate; venation usually pinnate. ***Sida***
  
- 7a. Shoots densely pubescent with white, feltlike, stellate pubescence. ***Sphaeralcea***
- 7b. Shoots not as above. **8**
  
- 8a. Flowers in a terminal cluster. ***Sida***
- 8b. Flowers usually solitary in the leaf axils. **9**
  
- 9a. Stems and sepals glabrous, but dotted with glands; fruit segments lacking bristles. ***Cienfugosia***
- 9b. Stems and sepals pubescent, glands absent; fruit segments with bristles or spines. ***Malvastrum***



### Challenge:

Using the key, find the appropriate genus for each photo on this page.

Hint: Answers are found in PDST on pages 317, 315, and 307.



## LRGV Native Plant Sources

See also our  
Sponsors on right

### **Perez Ranch Nursery**

(Betty Perez)

12 miles north of La Joya, TX

(956) 580-8915

<PerezRanchNatives@gmail.com>

**These vendors may sell exotics:**

### **National Butterfly Center**

Old Military Hwy/3333 Butterfly Pk Dr

Mission, TX 78572

office (956) 583-5400

Marianna Trevino Wright, Exec.Dir.

cell 956-648-7117

<mariana@nationalbutterflycenter.org>

[<http://www.nationalbutterflycenter.org>]

### **Rancho Lomitas Nursery**

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P.O. Box 442

Rio Grande City, TX 78582

(956) 486-2576 \*By appt. only

### **Valley Garden Center**

701 E. Bus. Hwy. 83

McAllen, TX 78501

(956) 682-9411

### **M&G Double D Native Plants & Seeds of South Texas, (Gail Dantzker)**

956-342-5979; <gdld@att.net>

7500 N 21st St; McAllen, TX 78504

[[mandgdoubled.com](http://mandgdoubled.com)]

*Grown at The Woods, Willacy Cty., TX.*

### **Landscapers using Natives:**

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*Come visit the VNC:*

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Above and below: *Malvastrum americanum*, PDST 312. Malva Loca. This is not often prized as a beautiful mallow, though it blooms throughout the year, often providing nectar when it is not plentiful elsewhere and providing seeds for birds. Rabbits feed on the leaves. Viewing magnified images often reveals beauty which is not otherwise seen.



NPP Board & General Meetings are held at

Valley Nature Center

(4th Tues. each month)

Brd Mtgs 6:30pm — Speaker 7:30pm.

2017 meetings: 3/28, 4/25, 5/23, 9/26, 10/24, 11/28

**FROM:** NPP; POB 2742; San Juan, TX 78589

The **Native Plant Project (NPP)** has no paid staff or facilities. NPP is supported entirely by memberships and contributions.

Anyone interested in native plants is invited to join. Members receive 8 issues of **The Sabal** newsletter per year in which they are informed of all project activities and meetings.

**Meetings are held at:**

Valley Nature Center, 301 S. Border, Weslaco, TX.

**Native Plant Project Membership Application**

\_\_\_Regular \$20/yr. \_\_\_Contributing \$45/yr

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**Dues for 2017 were due in January.  
Are you paid up??**

**TO:**

**NPP meeting/speaker:**

The Native Plant Project will present:

**“Living on the South Texas Sand Sheet”**

—by *Arturo Longoria-Valverde*

**Tues., February 28th, 7:30pm**

The Native Plant Project will present “The Sand Sheet” which is the latest book by local author and naturalist Arturo Longoria. It is the story of living at the edge of the 2.2 million acre South Texas Sand Sheet in his cabin near the junctions of Starr, Jim Hogg and Brooks Counties. The program will focus on the ecology and bushcraft of the region and the perils of those who cross this barren desert land only to succumb to the heat and lack of water.

The meeting is held at **Valley Nature Center**, 301 S Border, (in Gibson Park), Weslaco. 956-969-2475.

We hope to see you there!



South Texas Globe Mallow is one of our best beautiful wildflowers. They are perennial, with stems usually sprawling on the ground. This is a species of sandy soils which blooms during spring and summer. It is found in Cameron and Hidalgo counties. (*Sphaeralcea lindheimeri*, PDST 319.)